

Wadsworth Center The Governor Nelson A. Rockefeller Empire State Plaza P.O. BOX 509 Albany, New York 12201-0509

NIRAV R. SHAH, M.D., M.P.H. *Commissioner*

SUE KELLY
Executive Deputy Commissioner

March 24, 2011

Page 1 of 14

LAB ID: 11642 MR. DAVID REPPERT USGS NATIONAL WATER QUALITY LABORATORY PO BOX 25585 DENVER, CO 80225-0585

Dear Mr. Reppert:

Your laboratory's scores for the Environmental Laboratory Approval Program (ELAP) Non-Potable Water/Solid &Chemical Materials/Air & Emissions Chemistry Proficiency Test are enclosed.

ELAP validates the fitness for use of each sample/analyte used in it's PT studies. All analytes passed the assigned value verification and homogeneity evaluations prior to shipment for this study. After the study close date samples/analytes are evaluated again for stability in conjunction with historic pass/fail rates. The evaluation procedures used to establish the assigned value are discussed in the ELAP Certification Manual Item 300. All analytes were determined to be fit for use as PT materials for this study.

The assigned value is the 'made to' value for the analyte. The mean for scoring is either the predicted mean from the FoPT Tables or the participant consensus mean. The acceptance limits are centered on the mean for scoring, or for an unbiased analyte scored with fixed percentage, the assigned value. The acceptance limits are calculated as plus/minus three times the standard deviation or the fixed percentage stated in the report as denoted using the % symbol. In some cases, the acceptance limits are manually adjusted to conform with the FoPT table footnotes 4 through 6. In these cases, the standard deviation cannot be used to set the acceptance limits.

The statistical procedures used to establish study means, standard deviations and acceptance limits are described in the ELAP Certification Manual Item 330.

ELAP does not limit the usage of proficiency test reports by individuals or organizations. ELAP only distributes PT reports to the participant and any organization selected by the participant for distribution.

Sincerely

Daniel Dickinson

Deputy Director & PT Program Coordinator Environmental Laboratory Approval Program

NYS DOH - Wadsworth Center - ELAP - PO BOX 509 - Albany NY 12201-0509 Phone: (518) 485-5570 www.wadsworth.org/labcert Fax: (518) 485-5568

Proficiency Test Report

Lab Id: 11642 USGS NATIONAL WATER QUALITY LABORATORY

PO BOX 25585

EPA Lab Code: DENVER, CO 80225-0585

CO00009 (303) 236-2000

Director: MR. DAVID REPPERT

Shipment Date Closing Date

: 18-Jan-2011 : 03-Mar-2011

Score Date : 23-Mar-2011

| Analyte Name | Units | Sample | | Prep | Result/ | Mean/ | Standard | Acceptance | Score |
|--|-------------|-----------|------------------------|------------|-------------------|-------------------|-----------------------|--------------------------------------|---|
| | | ID | Method | Method | Analysis Date | Assigned Value | Deviation/ Fixed % | Limits | |
| Sample: Non Potable Water C | olor | | | | | | | | |
| Color Analyte Code: 1605 | Color | 4056 | USGS I-1250-85 | | 12.5 2/3/2011 | 14.5 14.8 | 1.9 | 5.00 - 25.0 46 passed out of 49 | Satisfactory reported results |
| Sample: Non Potable Water D | emand | | | | | | | | |
| Chemical Oxygen Demand Analyte Code: 1565 | mg/L | 4001 | USGS I-3561-85 | | 110 2/1/2011 | 107 112 | 7.73 | 83.9 - 130 71 passed out of 74 | Satisfactory reported results |
| Organic Carbon, Total Analyte Code: 2040 | mg/L | 4001 | SM 18-21 5310B (00) | | 47.2 1/27/2011 | 43.8 44.1 | 2.35 | 36.8 - 50.9 45 passed out of 46 | Satisfactory reported results |
| Sample: Non Potable Water C | hloropheno | xy Acid I | Pesticides (H | erbicides) | | | | | |
| 2,4-D Analyte Code: 8545 | ug/L | 4018 | USGS O-2060-01 | | 1.99 2/2/2011 | 1.99 2.49 | 0.771 | 0.25 - 4.30 33 passed out of 33 | Satisfactory reported results |
| Dicamba Analyte Code: 8595 | ug/L | 4018 | USGS O-2060-01 | | 6.89 2/2/2011 | 6.49 8.47 | 1.91 | 0.847 - 12.2 24 passed out of 24 | Satisfactory reported results |
| Sample: Non Potable Water M | ercury, Low | / Level | | | | | | | |
| Low Level Mercury Analyte Code: | ng/L | 4058 | USGS I-4464-01 | | 55.4 2/15/2011 | 61.3 61.6 | 5.24 | 45.5 - 77.0 9 passed out of 10 | Satisfactory reported results |
| Sample: Non Potable Water In | organic Nu | trients | | | | | | | |
| Ammonia (as N) Analyte Code: 1515 | mg/L | 4007 | USGS I-2522-90 | | 8.02 2/1/2011 | 8.18 8.21 | 0.71 | 6.05 - 10.3 102 passed ou | Satisfactory at of 106 reported results |
| Nitrate (as N) Analyte Code: 1810 | mg/L | 4007 | USGS I-2545-90 | | 4.86 2/4/2011 | 4.90 4.93 | 0.354 | 3.84 - 5.96 97 passed out of 100 | Satisfactory reported results |
| Orthophosphate (as P) Analyte Code: 1870 | mg/L | 4007 | USGS I-2601-90 | | 0.572 2/1/2011 | 0.567 0.56 | 0.0569 | 0.396 - 0.738 80 passed out of 86 | Satisfactory reported results |

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| Analyte Name | Units | Sample ID | Test Method | Prep Method | Result/ Analysis Date | Mean/ Assigned Value | Standard Deviation/ Fixed % | Acceptance Limits | Score |
|---|----------------|--------------|-------------------|----------------|-----------------------------|----------------------------|-----------------------------------|--------------------------------------|---|
| Sample: Non Potable Water | Surfactants | | | | | | | | |
| Surfactants (as MBAS) Analyte Code: 2025 | mg/L | 4043 | USGS O-3128-95 | | 0.38 1/28/2011 | 0.514 .50 | 0.0709 | 0.302 - 0.727 33 passed out of 36 | Satisfactory reported results |
| Sample: Non Potable Water | Metals I and I | I | | | | | | | |
| Silver, Total Analyte Code: 1150 | ug/L | 4011A | USGS I-4471-97 | | 97.4 2/3/2011 | 100 100 | 4.93 | 85.2 - 115 111 passed oเ | Satisfactory at of 118 reported results |
| Silver, Total Analyte Code: 1150 | ug/L | 4011A | USGS I-4472-97 | | 92.0 2/17/2011 | 100 100 | 4.93 | 85.2 - 115 111 passed oเ | Satisfactory at of 118 reported results |
| Aluminum, Total Analyte Code: 1000 | ug/L | 4011A | USGS I-4472-97 | | 1130 2/17/2011 | 1120 1120 | 69.7 | 906 - 1320 93 passed out of 93 | Satisfactory reported results |
| Aluminum, Total Analyte Code: 1000 | ug/L | 4011A | USGS I-4471-97 | | 1020 2/3/2011 | 1120 1120 | 69.7 | 906 - 1320 93 passed out of 93 | Satisfactory reported results |
| Arsenic, Total Analyte Code: 1010 | ug/L | 4011A | USGS I-4020-05 | | 324 2/17/2011 | 342 341 | 19.4 | 284 - 401 122 passed ou | Satisfactory of 122 reported results |
| Barium, Total Analyte Code: 1015 | ug/L | 4011A | USGS I-4471-97 | | 1190 2/3/2011 | 1180 1180 | 51.1 | 1020 - 1330 101 passed oเ | Satisfactory at of 102 reported results |
| Barium, Total Analyte Code: 1015 | ug/L | 4011A | USGS I-4472-97 | | 1180 2/17/2011 | 1180 1180 | 51.1 | 1020 - 1330 101 passed ວເ | Satisfactory at of 102 reported results |
| Beryllium, Total Analyte Code: 1020 | ug/L | 4011A | USGS I-4471-97 | | 654 2/3/2011 | 673 680 | 31.6 | 579 - 768 103 passed oเ | Satisfactory at of 103 reported results |
| Beryllium, Total Analyte Code: 1020 | ug/L | 4011A | USGS I-4472-97 | | 656 2/17/2011 | 673 680 | 31.6 | 579 - 768 103 passed oเ | Satisfactory at of 103 reported results |

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DENVER, CO 80225-0585 EPA Lab Code:

(303) 236-2000 CO00009

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Shipment Date Closing Date

: 18-Jan-2011 : 03-Mar-2011

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ELAP is an A2LA accredited Proficiency Testing Provider. Certificate Number 1785.01

| Analyte Name | Units | Sample Test ID Method | Prep Result/ Method Analysis Date | Mean/ Assigned Value | Standard Deviation/ Fixed % | Acceptance Limits | Score |
|--|-------------------|--------------------------|---|----------------------------|-----------------------------------|------------------------------------|---|
| Sample: Non Potable W | ater Metals I and | II | | | | | |
| Cadmium, Total Analyte Code: 1030 | ug/L | 4011A USGS I-4471-97 | < 0.40 2/3/2011 | < 5.90 | | 110 passed o | Satisfactory out of 126 reported results. |
| Cadmium, Total Analyte Code: 1030 | ug/L | 4011A USGS I-4472-97 | < 0.05 2/17/2011 | < 5.90 | | 110 passed o | Satisfactory out of 126 reported results. |
| Cobalt, Total Analyte Code: 1050 | ug/L | 4011A USGS I-4471-97 | 768 2/3/2011 | 759 759 | 30.5 | 667 - 850 82 passed out of 8 | Satisfactory 4 reported results. |
| Cobalt, Total Analyte Code: 1050 | ug/L | 4011A USGS I-4020-05 | 732 2/17/2011 | 759 759 | 30.5 | 667 - 850 82 passed out of 8 | Satisfactory 4 reported results. |
| Chromium, Total Analyte Code: 1040 | ug/L | 4011A USGS I-4020-05 | 0.247 2/17/2011 | < 17.0 | | | Unsatisfactory <== out of 115 reported results. |
| Copper, Total Analyte Code: 1055 | ug/L | 4011A USGS I-4471-97 | 587 2/3/2011 | 623 621 | 19.6 | 564 - 682 107 passed o | Satisfactory out of 120 reported results. |
| Copper, Total Analyte Code: 1055 | ug/L | 4011A USGS I-4020-05 | 610 2/17/2011 | 623 621 | 19.6 | 564 - 682 107 passed o | Satisfactory out of 120 reported results. |
| Iron, Total Analyte Code: 1070 | ug/L | 4011A USGS I-4471-97 | 2110 2/3/2011 | 2130 2120 | 84.7 | 1880 - 2390 79 passed out of 8 | Satisfactory 2 reported results. |
| Manganese, Total Analyte Code: 1090 | ug/L | 4011A USGS I-4471-97 | 2800 2/3/2011 | 2910 2890 | 102 | 2600 - 3210 98 passed out of 10 | Satisfactory 5 reported results. |
| Manganese, Total Analyte Code: 1090 | ug/L | 4011A USGS I-4472-97 | 2770 2/17/2011 | 2910 2890 | 102 | 2600 - 3210 98 passed out of 10 | Satisfactory 5 reported results. |

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: 18-Jan-2011 : 03-Mar-2011

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| Shipment: 340 | Non Potable W | vater Cne | emistry | | | | | | |
|--|----------------------|---------------|------------------|----------------|-----------------------------|----------------------------|-----------------------------------|----------------------------------|---|
| Analyte Name | Units | Sample ID | Test Method | Prep Method | Result/ Analysis Date | Mean/ Assigned Value | Standard Deviation/ Fixed % | Acceptance Limits | Score |
| Sample: Non Potable V | Vater Metals I and I | II | | | | | | | |
| Nickel, Total Analyte Code: 1105 | ug/L | 4011A U I- | JSGS -4020-05 | | 1820 2/17/2011 | 1930 1910 | 65.7 | 1719 - 2130 108 passed o | Satisfactory ut of 116 reported results |
| Nickel, Total Analyte Code: 1105 | ug/L | 4011A U I- | JSGS -4471-97 | | 1790 2/3/2011 | 1930 1910 | 65.7 | 1719 - 2130 108 passed o | Satisfactory ut of 116 reported results |
| Lead, Total Analyte Code: 1075 | ug/L | 4011A U I- | JSGS -4472-97 | | 2240 2/17/2011 | 2390 2400 | 93 | 2120 - 2670 137 passed o | Satisfactory ut of 144 reported results |
| Antimony, Total Analyte Code: 1005 | ug/L | 4011A U I- | JSGS -4472-97 | | 557 2/17/2011 | 553 580 | 48.4 | 407 - 698 103 passed o | Satisfactory ut of 108 reported results |
| Selenium, Total Analyte Code: 1140 | ug/L | 4011A U I- | JSGS -4020-05 | | < 0.05 2/17/2011 | < 67.0 | | 113 passed o | Satisfactory ut of 116 reported results |
| Strontium, Total Analyte Code: 1160 | ug/L | 4011A U I- | JSGS -4472-97 | | 219 2/17/2011 | 221 221 | 9.78 | 192 - 251 39 passed out of 4. | Satisfactory 2 reported results |
| Thallium, Total Analyte Code: 1165 | ug/L | 4011A U I- | JSGS -4472-97 | | 314 2/17/2011 | 319 320 | 24.5 | 246 - 393 103 passed o | Satisfactory ut of 105 reported results |
| Vanadium, Total Analyte Code: 1185 | ug/L | 4011A U I- | JSGS -4020-05 | | 99.0 2/17/2011 | 99.9 100 | 4.33 | 86.9 - 113 80 passed out of 8 | Satisfactory 7 reported results |
| Vanadium, Total Analyte Code: 1185 | ug/L | 4011A U I- | JSGS -4471-97 | | 100 2/3/2011 | 99.9 100 | 4.33 | 86.9 - 113 80 passed out of 8 | Satisfactory 7 reported results |
| Zinc, Total Analyte Code: 1190 | ug/L | 4011A U I- | JSGS -4471-97 | | 350 2/3/2011 | 384 381 | 19.3 | 326 - 441 111 passed o | Satisfactory ut of 114 reported results |

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| Shipment: 340 N | on Potable W | | | | | | | | |
|--------------------------|-------------------|--------------|------------------------|----------------|-----------------------------|----------------------------|-----------------------------------|----------------------|--------------------------------|
| Analyte Name | Units | Sample ID | e Test Method | Prep Method | Result/ Analysis Date | Mean/ Assigned Value | Standard Deviation/ Fixed % | Acceptance Limits | Score |
| Sample: Non Potable Wate | er Metals I and I | I | | | | | | | |
| Zinc, Total | ug/L | 4011A | USGS | | 314 | 384 | 19.3 | 326 - 441 | Unsatisfactory <== |
| Analyte Code: 1190 | | | I-4020-05 | | 2/17/2011 | 381 | | 111 passed | out of 114 reported results |
| Sample: Non Potable Wate | er Metals III | | | | | | | | |
| Molybdenum, Total | ug/L | 4011B | USGS | | 503 | 518 | 25.3 | 442 - 594 | Satisfactory |
| Analyte Code: 1100 | | | I-4472-97 | | 2/17/2011 | 521 | | 89 passed out of 9 | 90 reported results |
| Molybdenum, Total | ug/L | 4011B | USGS | | 500 | 518 | 25.3 | 442 - 594 | Satisfactory |
| Analyte Code: 1100 | | | I-4471-97 | | 2/3/2011 | 521 | | 89 passed out of 9 | 90 reported results |
| Sample: Non Potable Wate | er Minerals | | | | | | | | |
| Chloride | mg/L | 4008 | USGS | | 48.6 | 50.7 | 2.64 | 42.8 - 58.6 | Satisfactory |
| Analyte Code: 1575 | | | I-2057-85 | | 1/28/2011 | 50.4 | S | 98 passed out of 10 | 00 reported results |
| Sulfate (as SO4) | mg/L | 4008 | USGS | | 68.1 | 69.7 | 3.79 | 58.3 - 81.1 | Satisfactory |
| Analyte Code: 2000 | | | I-2057-85 | | 1/28/2011 | 70.7 | | 74 passed out of | 77 reported results |
| Sample: Non Potable Wate | er Minerals II | | | | | | | | |
| Calcium, Total | mg/L | 4037 | USGS | | 79.1 | 83.1 | 3.22 | 73.4 - 92.8 | Satisfactory |
| Analyte Code: 1035 | | | I-4471-97 | | 2/3/2011 | 82.0 | | 69 passed out of 1 | 72 reported results |
| Potassium, Total | mg/L | 4037 | SM 18-21 3120B (99) | | 8.44 | 8.98 | 0.622 | 7.12 - 10.9 | Satisfactory |
| Analyte Code: 1125 | | | 01200 (88) | | 2/3/2011 | 8.95 | | 63 passed out of 0 | 67 reported results |
| Magnesium, Total | mg/L | 4037 | USGS | | 30.0 | 32.4 | 1.57 | 27.7 - 37.1 | Satisfactory |
| Analyte Code: 1085 | | | I-4471-97 | | 2/3/2011 | 32.3 | | 73 passed out of 3 | 74 reported results |
| Sodium, Total | mg/L | 4037 | USGS | | 11.2 | 12.4 | 0.661 | 10.4 - 14.3 | Satisfactory |
| Analyte Code: 1155 | | | I-4471-97 | | 2/3/2011 | 12.2 | | 69 passed out of | 72 reported results |

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| Analyte Name | Units | Sample | e Test | Prep | Result/ | Mean/ | Standard | Acceptance | Score |
|---|---------------|--------|-------------------|--------|---------------------|-------------------|-----------------------|--------------------------------------|-------------------------------|
| Analyte Name | Omio | ID | Method | Method | Analysis Date | Assigned Value | Deviation/ Fixed % | Limits | |
| Sample: Non Potable Water I | Nitrite | | | | | | | | |
| Nitrite as N Analyte Code: 1840 | mg/L | 4041 | USGS I-2540-90 | | 0.484 2/1/2011 | 0.475 0.48 | 0.0421 | 0.349 - 0.602 89 passed out of 92 | Satisfactory reported results |
| Sample: Non Potable Water I | Nitrosamines | | | | | | | | |
| N-Nitrosodimethylamine Analyte Code: 6530 | ug/L | 4014 | USGS O-3116-87 | | 102 1/31/2011 | 77.7 165 | 34.7 | 16.5 - 181.5 50 passed out of 50 | Satisfactory reported results |
| N-Nitrosodi-n-propylamine Analyte Code: 6545 | ug/L | 4014 | USGS O-3116-87 | | 86.3 1/31/2011 | 78.7 100 | 16.4 | 29.6 - 128 54 passed out of 55 | Satisfactory reported results |
| Sample: Non Potable Water | Acid extracta | bles | | | | | | | |
| 2,4,6-Trichlorophenol Analyte Code: 6840 | ug/L | 4035 | USGS O-3116-87 | | 80.3 1/31/2011 | 91.3 116 | 18.1 | 37.1 - 146 56 passed out of 57 | Satisfactory reported results |
| 2,4-Dichlorophenol Analyte Code: 6000 | ug/L | 4035 | USGS O-3116-87 | | 118 1/31/2011 | 104 134 | 20.1 | 43.6 - 164 57 passed out of 57 | Satisfactory reported results |
| 2,4-Dimethylphenol Analyte Code: 6130 | ug/L | 4035 | USGS O-3116-87 | | < 0.80 1/31/2011 | < 65.0 | | 57 passed out of 57 | Satisfactory reported results |
| 2,4-Dinitrophenol Analyte Code: 6175 | ug/L | 4035 | USGS O-3116-87 | | < 2.00 1/31/2011 | < 100 | | 56 passed out of 56 | Satisfactory reported results |
| 2-Chlorophenol Analyte Code: 5800 | ug/L | 4035 | USGS O-3116-87 | | 84.5 1/31/2011 | 79.9 103 | 16.6 | 30.1 - 130 56 passed out of 57 | Satisfactory reported results |
| 2-Nitrophenol Analyte Code: 6490 | ug/L | 4035 | USGS O-3116-87 | | < 2.12 1/31/2011 | < 50.0 | | 57 passed out of 57 | Satisfactory reported results |
| 4-Chloro-3-methylphenol Analyte Code: 5700 | ug/L | 4035 | USGS O-3116-87 | | 137 1/31/2011 | 137 163 | 24.2 | 64.3 - 209 56 passed out of 57 | Satisfactory reported results |

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| Shipment: 340 Non | Potable W | /ater Cl | nemistry | | | | | | |
|--|--------------|--------------|-------------------|----------------|-----------------------------|----------------------------|-----------------------------------|------------------------------------|--|
| Analyte Name | Units | Sample ID | e Test Method | Prep Method | Result/ Analysis Date | Mean/ Assigned Value | Standard Deviation/ Fixed % | Acceptance Limits | Score |
| Sample: Non Potable Water A | cid extracta | bles | | | | | | | |
| Phenol Analyte Code: 6625 | ug/L | 4035 | USGS O-3116-87 | | 65.8 1/31/2011 | 86.9 155 | 40.2 | 15.5 - 171 56 passed out of 57 | Satisfactory reported results. |
| Sample: Non Potable Water B | ase/Neutral: | s | | | | | | | |
| 1,2,4-Trichlorobenzene Analyte Code: 5155 | ug/L | 4036 | USGS O-3116-87 | | < 0.26 1/31/2011 | < 35.0 | | 57 passed out of 57 | Satisfactory reported results. |
| 2,4-Dinitrotoluene Analyte Code: 6185 | ug/L | 4036 | USGS O-3116-87 | | 44.1 1/31/2011 | 51.4 63.1 | 9.66 | 22.4 - 80.3 53 passed out of 55 | Satisfactory 5 reported results. |
| 2,6-Dinitrotoluene Analyte Code: 6190 | ug/L | 4036 | USGS O-3116-87 | | 40.7 1/31/2011 | 46.2 55.7 | 8 | 22.2 - 70.2 54 passed out of 55 | Satisfactory 5 reported results. |
| 2-Chloronaphthalene Analyte Code: 5795 | ug/L | 4036 | USGS O-3116-87 | | < 0.16 1/31/2011 | < 20.0 | | 57 passed out of 57 | Satisfactory reported results. |
| 4-Chlorophenylphenyl ether Analyte Code: 5825 | ug/L | 4036 | USGS O-3116-87 | | 27.0 1/31/2011 | 31.3 37.0 | 5.64 | 14.3 - 48.2 55 passed out of 55 | Satisfactory 5 reported results. |
| 4-Bromophenylphenyl ether Analyte Code: 5660 | ug/L | 4036 | USGS O-3116-87 | | 63.6 1/31/2011 | 75.6 90.4 | 15.3 | 29.8 - 121 54 passed out of 58 | Satisfactory 5 reported results. |
| Acenaphthene Analyte Code: 5500 | ug/L | 4036 | USGS O-3116-87 | | 108 1/31/2011 | 126 161 | 21.2 | 62.6 - 190 53 passed out of 57 | Satisfactory reported results. |
| Anthracene Analyte Code: 5555 | ug/L | 4036 | USGS O-3116-87 | | 58.3 1/31/2011 | 72.7 86.9 | 12 | 36.7 - 109 54 passed out of 57 | Satisfactory reported results. |
| Acenaphthylene Analyte Code: 5505 | ug/L | 4036 | USGS O-3116-87 | | 1.29 1/31/2011 | < 10.0 | | U 54 passed out of 57 | nsatisfactory <== 7 reported results. |
| Bis(2-chloroethyl)ether Analyte Code: 5765 | ug/L | 4036 | USGS O-3116-87 | | 152 1/31/2011 | 131 179 | 28 | 47.0 - 215 52 passed out of 55 | Satisfactory reported results. |

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|---|--------------|--------------|-------------------|----------------|-----------------------------|----------------------------|-----------------------------------|-----------------------------------|------------------------------------|
| Sample: Non Potable Water Ba | ase/Neutrals | <u> </u> | | | Date | value | rixeu /6 | | |
| Bis(2-chloroethoxy)methane Analyte Code: 5760 | ug/L | | USGS O-3116-87 | | 37.1 1/31/2011 | 32.1 39.9 | 5.54 | 15.5 - 48.8 53 passed out of 5 | Satisfactory 5 reported results |
| Bis(2-chloroisopropyl)ether Analyte Code: 5780 | ug/L | 4036 | USGS O-3116-87 | | 122 1/31/2011 | 102 141 | 22.7 | 34.0 - 170 54 passed out of 5 | Satisfactory 5 reported results |
| Bis(2-ethylhexyl)phthalate Analyte Code: 6255 | ug/L | 4036 | USGS O-3116-87 | | < 2.60 1/31/2011 | < 20.0 | | 57 passed out of 5 | Satisfactory 8 reported results |
| Benzo(a)anthracene Analyte Code: 5575 | ug/L | 4036 | USGS O-3116-87 | | 37.3 1/31/2011 | 44.2 51.3 | 7.07 | 23.0 - 65.5 56 passed out of 5 | Satisfactory 7 reported results |
| Benzo(a)pyrene Analyte Code: 5580 | ug/L | 4036 | USGS O-3116-87 | | < 0.32 1/31/2011 | < 20.0 | | 56 passed out of 5 | Satisfactory 7 reported results |
| Benzo(b)fluoranthene Analyte Code: 5585 | ug/L | 4036 | USGS O-3116-87 | | 26.3 1/31/2011 | 31.9 37.0 | 6.39 | 12.7 - 51.1 55 passed out of 5 | Satisfactory 7 reported results |
| Benzo(g,h,i)perylene Analyte Code: 5590 | ug/L | 4036 | USGS O-3116-87 | | 41.7 1/31/2011 | 49.7 57.5 | 9.97 | 19.8 - 79.6 57 passed out of 5 | Satisfactory 7 reported results |
| Benzo(k)fluoranthene Analyte Code: 5600 | ug/L | 4036 | USGS O-3116-87 | | 64.9 1/31/2011 | 73.9 87.5 | 17.4 | 21.7 - 126 55 passed out of 5 | Satisfactory 7 reported results |
| Benzyl butyl phthalate Analyte Code: 5670 | ug/L | 4036 | USGS O-3116-87 | | < 1.8 1/31/2011 | < 50.0 | | 58 passed out of 5 | Satisfactory 8 reported results |
| Chrysene Analyte Code: 5855 | ug/L | 4036 | USGS O-3116-87 | | 45.5 1/31/2011 | 49.8 57.6 | 8.84 | 23.3 - 76.3 56 passed out of 5 | Satisfactory 7 reported results |
| Dibenzo(a,h)anthracene Analyte Code: 5895 | ug/L | 4036 | USGS O-3116-87 | | 38.3 1/31/2011 | 42.5 50.1 | 9.62 | 13.7 - 71.4 55 passed out of 5 | Satisfactory 7 reported results |

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DENVER, CO 80225-0585 EPA Lab Code:

(303) 236-2000 CO00009

Director: MR. DAVID REPPERT

Shipment Date Closing Date

: 18-Jan-2011 : 03-Mar-2011

Score

Score Date : 23-Mar-2011

Acceptance

ELAP is an A2LA accredited Proficiency Testing Provider. Certificate Number 1785.01

Prep

Result/

Mean/

Standard

Shipment: 340 Non Potable Water Chemistry Sample **Analyte Name** Test ΙD Method

| Analyte Name | Units | ID | Method | Method | Analysis Date | Assigned Value | Deviation/ Fixed % | Limits | Score |
|---|---------------|------|-------------------|--------|---------------------|-------------------|-----------------------|-----------------------------------|-------------------------------------|
| Sample: Non Potable Water E | Base/Neutrals | 5 | | | | | | | |
| Di-n-butyl phthalate Analyte Code: 5925 | ug/L | 4036 | USGS O-3116-87 | | 81.4 1/31/2011 | 89.5 110 | 17.9 | 35.9 - 143 57 passed out of 5 | Satisfactory 8 reported results. |
| Diethyl phthalate Analyte Code: 6070 | ug/L | 4036 | USGS O-3116-87 | | 85.5 1/31/2011 | 91.0 117 | 23.1 | 21.6 - 160 57 passed out of 5 | Satisfactory 8 reported results. |
| Dimethyl phthalate Analyte Code: 6135 | ug/L | 4036 | USGS O-3116-87 | | 95.4 1/31/2011 | 88.1 132 | 34.1 | 13.2 - 191 57 passed out of 5 | Satisfactory 8 reported results. |
| Di-n-octyl phthalate Analyte Code: 6200 | ug/L | 4036 | USGS O-3116-87 | | 101 1/31/2011 | 125 151 | 32.1 | 29.0 - 222 56 passed out of 5 | Satisfactory 8 reported results. |
| Fluoranthene Analyte Code: 6265 | ug/L | 4036 | USGS O-3116-87 | | < 0.30 1/31/2011 | < 14.0 | | 55 passed out of 5 | Satisfactory 7 reported results. |
| Hexachlorobenzene Analyte Code: 6275 | ug/L | 4036 | USGS O-3116-87 | | < 0.30 1/31/2011 | < 20.0 | | 61 passed out of 6 | Satisfactory 1 reported results. |
| Indeno(1,2,3-c,d)pyrene Analyte Code: 6315 | ug/L | 4036 | USGS O-3116-87 | | 54.1 1/31/2011 | 65.8 84.6 | 14.1 | 23.5 - 108 57 passed out of 5 | Satisfactory 7 reported results. |
| Isophorone Analyte Code: 6320 | ug/L | 4036 | USGS O-3116-87 | | 82.6 1/31/2011 | 89.1 106 | 15.9 | 41.5 - 137 51 passed out of 5 | Satisfactory 5 reported results. |
| Naphthalene Analyte Code: 5005 | ug/L | 4036 | USGS O-3116-87 | | 51.1 1/31/2011 | 45.6 60.1 | 9.39 | 17.5 - 73.8 57 passed out of 5 | Satisfactory 7 reported results. |
| Nitrobenzene Analyte Code: 5015 | ug/L | 4036 | USGS O-3116-87 | | 46.5 1/31/2011 | 42.3 53.8 | 8.3 | 17.4 - 67.3 53 passed out of 5 | Satisfactory 5 reported results. |
| Phenanthrene Analyte Code: 6615 | ug/L | 4036 | USGS O-3116-87 | | < 0.32 1/31/2011 | < 30.0 | | 56 passed out of 5 | Satisfactory 7 reported results. |

Proficiency Test Report

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PO BOX 25585

EPA Lab Code: DENVER, CO 80225-0585

CO00009 (303) 236-2000

Director: MR. DAVID REPPERT

Shipment Date Closing Date

: 18-Jan-2011 : 03-Mar-2011

Score Date : 03-Mar-2011

| Shipment: 340 Nor | Potable W | /ater Cl | nemistry | | | | | | |
|---|---------------|--------------|-------------------|----------------|-----------------------------|----------------------------|-----------------------------------|------------------------------------|------------------------------------|
| Analyte Name | Units | Sample ID | e Test Method | Prep Method | Result/ Analysis Date | Mean/ Assigned Value | Standard Deviation/ Fixed % | Acceptance Limits | Score |
| Sample: Non Potable Water I | Base/Neutral: | s | | | | | | | |
| Pyrene Analyte Code: 6665 | ug/L | 4036 | USGS O-3116-87 | | 34.5 1/31/2011 | 41.0 46.7 | 8.58 | 15.2 - 66.7 57 passed out of 5 | Satisfactory 7 reported results |
| Sample: Non Potable Water (| Organic Nutri | ients | | | | | | | |
| Kjeldahl Nitrogen, Total Analyte Code: 1795 | mg/L | 4004 | USGS I-4515-91 | | 15.9 2/8/2011 | 14.9 15.3 | 1.61 | 10.1 - 19.8 73 passed out of 7 | Satisfactory 8 reported results |
| Phosphorus, Total Analyte Code: 1910 | mg/L | 4004 | USGS I-4610-91 | | 2.61 2/4/2011 | 2.52 2.49 | 0.17 | 2.01 - 3.02 89 passed out of 9 | Satisfactory 4 reported results |
| Sample: Non Potable Water (| Chlorinated H | lydrocar | bon Pesticid | es | | | | | |
| 4,4-DDE Analyte Code: 7360 | ug/L | 4017 | USGS O-1126-95 | | 4.66 2/16/2011 | 5.81 6.68 | 0.947 | 2.97 - 8.65 46 passed out of 5 | Satisfactory 1 reported results |
| alpha-BHC Analyte Code: 7110 | ug/L | 4017 | USGS O-1126-95 | | 1.91 2/16/2011 | 1.89 2.13 | 0.41 | 0.664 - 3.12 51 passed out of 5 | Satisfactory 1 reported results |
| Sample: Non Potable Water I | Purgeables | | | | | | | | |
| 1,1,1-Trichloroethane Analyte Code: 5160 | ug/L | 4013 | USGS O-4127-96 | | < 0.75 2/11/2011 | < 10.0 | | 61 passed out of 6 | Satisfactory 4 reported results |
| 1,1,2,2-Tetrachloroethane Analyte Code: 5110 | ug/L | 4013 | USGS O-4127-96 | | 41.6 2/11/2011 | 49.4 48.1 | 7.42 | 27.2 - 71.7 61 passed out of 6 | Satisfactory 3 reported results |
| 1,1,2-Trichloroethane Analyte Code: 5165 | ug/L | 4013 | USGS O-4127-96 | | 105 2/11/2011 | 108 109.3 | 10.9 | 75.6 - 141 61 passed out of 6 | Satisfactory 3 reported results |
| 1,1-Dichloroethane Analyte Code: 4630 | ug/L | 4013 | USGS O-4127-96 | | 51.4 2/11/2011 | 53.1 51.7 | 5.9 | 35.4 - 70.8 62 passed out of 6 | Satisfactory 4 reported results |
| 1,1-Dichloroethene Analyte Code: 4640 | ug/L | 4013 | USGS O-4127-96 | | 70.5 2/11/2011 | 78.0 79.5 | 12.4 | 40.9 - 115 63 passed out of 6 | Satisfactory 4 reported results |

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Lab ld: 11642

USGS NATIONAL WATER QUALITY LABORATORY

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Shipment Date : 18-Jan-2011 Closing Date : 03-Mar-2011

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| Shipment: 340 | Non Potable W | /ater C | hemistry | | | | | | |
|-------------------------|------------------|--------------|------------------|----------------|-----------------------------|----------------------------|-----------------------------------|----------------------|---------------------|
| Analyte Name | Units | Sample ID | e Test Method | Prep Method | Result/ Analysis Date | Mean/ Assigned Value | Standard Deviation/ Fixed % | Acceptance Limits | Score |
| Sample: Non Potable V | Vater Purgeables | | | | | | | | |
| 1,2-Dichloroethane | ug/L | 4013 | USGS | | 69.2 | 71.2 | 7.31 | 49.3 - 93.2 | Satisfactory |
| Analyte Code: 4635 | | | O-4127-96 | | 2/11/2011 | 71.0 | | 62 passed out of 6 | 3 reported results. |
| 1,2-Dichlorobenzene | ug/L | 4013 | USGS | | 68.8 | 76.2 | 7.66 | 53.2 - 99.2 | Satisfactory |
| Analyte Code: 4610 | | | O-4127-96 | | 2/11/2011 | 76.5 | | 72 passed out of 7 | 4 reported results. |
| 1,2-Dichloropropane | ug/L | 4013 | USGS | | 33.1 | 33.5 | 3.89 | 21.8 - 45.1 | Satisfactory |
| Analyte Code: 4655 | | | O-4127-96 | | 2/11/2011 | 33.8 | | 61 passed out of 6 | 2 reported results. |
| 1,3-Dichlorobenzene | ug/L | 4013 | USGS | | 47.5 | 53.2 | 5.46 | 36.8 - 69.6 | Satisfactory |
| Analyte Code: 4615 | | | O-4127-96 | | 2/11/2011 | 54.5 | | 71 passed out of 7 | 4 reported results. |
| 1,4-Dichlorobenzene | ug/L | 4013 | USGS | | 30.0 | 33.8 | 3.52 | 23.2 - 44.3 | Satisfactory |
| Analyte Code: 4620 | | | O-4127-96 | | 2/11/2011 | 34.7 | | 73 passed out of 7 | 5 reported results. |
| Benzene | ug/L | 4013 | USGS | | 54.9 | 56.5 | 5.19 | 40.9 - 72.1 | Satisfactory |
| Analyte Code: 4375 | | | O-4127-96 | | 2/11/2011 | 56.7 | | 72 passed out of 7 | 4 reported results. |
| Bromodichloromethane | ug/L | 4013 | USGS | | 58.1 | 69.3 | 7.2 | 47.7 - 90.9 | Satisfactory |
| Analyte Code: 4395 | | | O-4127-96 | | 2/11/2011 | 67.3 | | 58 passed out of 6 | 2 reported results. |
| Bromoform | ug/L | 4013 | USGS | | < 2.5 | | | | Satisfactory |
| Analyte Code: 4400 | | | O-4127-96 | | 2/11/2011 | < 5.60 | | 60 passed out of 6 | 2 reported results. |
| cis-1,3-Dichloropropene | ug/L | 4013 | USGS | | < 2.5 | | | | Satisfactory |
| Analyte Code: 4680 | | | O-4127-96 | | 2/11/2011 | < 10.0 | | 61 passed out of 6 | 2 reported results. |
| Carbon tetrachloride | ug/L | 4013 | USGS | | 93.4 | 109 | 15.6 | 62.1 - 156 | Satisfactory |
| Analyte Code: 4455 | | | O-4127-96 | | 2/11/2011 | 114.7 | | 61 passed out of 6 | 2 reported results. |
| Trichlorofluoromethane | ug/L | 4013 | USGS | | < 1.5 | | | | Satisfactory |
| Analyte Code: 5175 | | | O-4127-96 | | 2/11/2011 | < 8.00 | | 60 passed out of 6 | 1 reported results. |

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| Shipment: 340 | Non Potable W | /ater C | hemistry | | | | | | |
|---|------------------|--------------|-------------------|----------------|-----------------------------|----------------------------|-----------------------------------|-----------------------------------|-------------------------------------|
| Analyte Name | Units | Sample ID | e Test Method | Prep Method | Result/ Analysis Date | Mean/ Assigned Value | Standard Deviation/ Fixed % | Acceptance Limits | Score |
| Sample: Non Potable V | Vater Purgeables | | | | | | | | |
| Chlorobenzene Analyte Code: 4475 | ug/L | 4013 | USGS O-4127-96 | | 93.5 2/11/2011 | 92.7 94.0 | 8.27 | 67.8 - 117 68 passed out of 7 | Satisfactory 2 reported results. |
| Dibromochloromethane Analyte Code: 4575 | ug/L | 4013 | USGS O-4127-96 | | 67.1 2/11/2011 | 80.9 80.4 | 8.61 | 55.1 - 107 61 passed out of 6 | Satisfactory 2 reported results. |
| Chloroethane Analyte Code: 4485 | ug/L | 4013 | USGS O-4127-96 | | 56.9 2/11/2011 | 62.2 62.2 | 60% | 24.9 - 99.5 58 passed out of 6 | Satisfactory 3 reported results. |
| Chloroform Analyte Code: 4505 | ug/L | 4013 | USGS O-4127-96 | | 13.5 2/11/2011 | 13.8 13.4 | 1.56 | 9.13 - 18.5 59 passed out of 6 | Satisfactory 3 reported results. |
| Ethyl benzene Analyte Code: 4765 | ug/L | 4013 | USGS O-4127-96 | | < 0.9 2/11/2011 | < 9.00 | | 70 passed out of 7 | Satisfactory 4 reported results. |
| Methylene chloride Analyte Code: 4975 | ug/L | 4013 | USGS O-4127-96 | | 81.4 2/11/2011 | 80.4 80.4 | 10.4 | 49.3 - 111 63 passed out of 6 | Satisfactory 4 reported results. |
| trans-1,3-Dichloroprope Analyte Code: 4685 | ne ug/L | 4013 | USGS O-4127-96 | | < 3.5 2/11/2011 | < 8.00 | | 60 passed out of 6 | Satisfactory 2 reported results. |
| Tetrachloroethene Analyte Code: 5115 | ug/L | 4013 | USGS O-4127-96 | | < 0.65 2/11/2011 | < 10.0 | | 65 passed out of 6 | Satisfactory 6 reported results. |
| Toluene Analyte Code: 5140 | ug/L | 4013 | USGS O-4127-96 | | < 0.45 2/11/2011 | < 7.00 | | 71 passed out of 7 | Satisfactory 5 reported results. |
| Trichloroethene Analyte Code: 5170 | ug/L | 4013 | USGS O-4127-96 | | 21.7 2/11/2011 | 21.4 21.7 | 2.58 | 13.7 - 29.2 62 passed out of 6 | Satisfactory 7 reported results. |
| Total Xylenes Analyte Code: 5260 | ug/L | 4013 | USGS O-4127-96 | | 150 2/11/2011 | 150 156.4 | 20 | 89.7 - 210 72 passed out of 7 | Satisfactory 3 reported results. |

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| Onlyment. 340 North Stable Water Orientstry | | | | | | | | | |
|---|--------------------|--------------|-------------------|----------------|-----------------------------|----------------------------|-----------------------------------|---------------------------------|-------------------------------------|
| Analyte Name | Units | Sample ID | Test Method | Prep Method | Result/ Analysis Date | Mean/ Assigned Value | Standard Deviation/ Fixed % | Acceptance Limits | Score |
| Sample: Non Potable W | ater Purgeables | | | | | | | | |
| Vinyl chloride Analyte Code: 5235 | ug/L | 4013 | USGS O-4127-96 | | < 1.5 2/11/2011 | < 20.0 | | 63 passed out of 6 | Satisfactory 5 reported results. |
| Sample: Non Potable W | ater Residue | | | | | | | | |
| Solids, Total Analyte Code: 1950 | mg/L | 4002 | USGS I-3750-85 | | 346 2/9/2011 | 358 361 | 13.5 | 318 - 399 65 passed out of 7 | Satisfactory 7 reported results. |
| Sample: Non Potable W | ater Total Dissolv | ed Solids | 5 | | | | | | |
| Solids, Total Dissolved Analyte Code: 1955 | mg/L | 4040 | USGS I-1750-85 | | 182 2/9/2011 | 194 190 | 17.676 | 141 - 247 71 passed out of 7 | Satisfactory 5 reported results. |